

REMARKS/ARGUMENTS

In an Office Action mailed August 22, 2003 the Examiner rejected claims 1-26 as being obvious under 35 U.S.C. 103(a) over U.S. Patent No. 5,394,524 (DiNicola) in view of U.S. Patent No. 6,208,350 (Herrera). In response thereto Applicants have amended claims 1-5, 7-12, 14-17, and 20-26 and respectfully request the reconsideration of the rejection and the allowance of the present application.

The Examiner stated that DiNicola suggests dual-mode sub-processing circuitry (AP processor 306) that performs raster operations in one of multiple modes, and admits it fails to specifically disclose or suggest performing motion compensation operations. The Examiner however stated that Herrera discloses motion compensation operations, and concluded that it would have been obvious to use the motion compensation operations taught by Herrera for the generic "two dimensional image processing" taught by DiNicola because "there are similarities between the process of motion compensation and texture mapping, which is part of three-dimensional graphics data processing, thus providing a cost-effective solution for doing both in one system . . ."

This latter statement may be true, but its truth is not found in the prior art references, but only from Applicants' own disclosure. This is impermissible use of hindsight gained from reading Applicants' disclosure. Only Applicants' disclosure teaches the similarity in circuit implementation that allows common circuitry to share functions associated with two- and three-dimensional image pipelines and the seemingly different operations required thereby.

Moreover the combination of Herrera and DiNicola fail to render the presently claimed invention obvious for an even more fundamental reason: DiNicola specifically teaches away from the invention. DiNicola is concerned with the concurrent processing of both two-dimensional data and three-dimensional data (e.g. Abstract at lines 1-6). To perform this concurrent processing, DiNicola requires the use of separate circuitry, either

3D processing nodes 305 or 2D system 301, each dedicated to its own particular mode. While it may be known from Herrera that motion compensation is a type of 2D image processing, the combination would merely suggest performing motion compensation in the 2D pipeline concurrently with performing rasterization in the 3D pipeline.

Applicants have amended the claims to state this distinction more clearly. Thus for example claim 1 now recites "dual mode sub-processing circuitry . . . operable in a selected one of a two-dimensional mode and a three-dimensional mode, wherein when in said two-dimensional mode said dual mode sub-processing circuitry performs motion compensation operations associated with said two-dimensional image pipeline and wherein when in said three-dimensional mode said dual mode sub-processing circuit performs rasterization operations associated with said three-dimensional image pipeline." Independent claims 7, 14, 20, and 26 now also include similar limitations.

Therefore Applicants respectfully request the reconsideration of the present claims and the allowance thereof, thereby placing the application in condition for allowance. Please contact the undersigned attorney for any questions.

Respectfully submitted,

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